

-30-

What is claimed is:

1. An apparatus for indicating the relative signal strength for a telemetry system when said telemetry system communicates information between an external device and an implantable medical device, comprising:

an external transceiver unit coupled to an external device;

an internal transceiver unit coupled to an implantable medical device;

indicator means coupled to said external transceiver unit for

continuously providing a first tactile indication of relative signal strength of the external transceiver unit and the internal transceiver unit, wherein said tactile indication has a common frequency characteristic and said tactile indication has a greater magnitude for a relatively high signal strength than for a relatively low signal strength.

2. An apparatus according to claim 60, wherein a second tactile indication is provided whenever the relative signal strength decreases below a predetermined lower threshold value and said second tactile indication has a dominant frequency characteristic different than the common frequency characteristic of said first tactile indication.

3. An apparatus according to claim 60, wherein said indicator means is coupled to a hand-held communication head of said external device or a compact member adapted to be manually coupled to a user and also to said external device.

-31-

4. An apparatus according to claim 61, wherein said indicator means further comprises a third tactile indication provided upon successful completion of a handshake protocol sequence between the external device and the implanted device, and wherein said third tactile indication has a dominant frequency characteristic different from the first tactile indication and said second tactile indication.

5. An apparatus according to claim 63, wherein said indicator means further comprises a fourth tactile indication provided during operation of the handshake protocol sequence between the external device and the implanted device and wherein said fourth tactile indication has a dominant frequency characteristic different from the first tactile indication, the second tactile indication, and the third tactile indication.

6. An apparatus according to claim 62, wherein said indicator means operates pursuant to a computer control system and further comprises at least a one of the following:

- a vibrating motor;
- an electrical solenoid;
- an electrical relay contact; or
- a piezoelectric device.

7. An apparatus according to claim 62, wherein in lieu of continuously providing said first tactile indication the indicating means provides said first tactile indication for a predetermined period of time and then ceases providing said first tactile indication upon expiration of said predetermined period of time.